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A REPORT OF CONFERENCE ON STRATEGIES FOR EDUCATIONAL CHANGE
(WASHINGTON, D.C., NOVEMBER 8-10, 1965).

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A REPORT WAS MADE OF A 3-DAY WORKING CONFERENCE ON STRATEGIES FOR EDUCATIONAL CHANGE. EIGHT PAPERS ON THE ASPECTS OF PLANNED EDUCATIONAL CHANGE WERE COMMISSIONED AND PRESENTED AT THE CONFERENCE. THE CONFERENCE ALSO DISCUSSED EXISTING RESEARCH FINDINGS AND CONCEPTUAL FRAMEWORKS RELATING TO CHANGE IN EDUCATION AND OTHER SOCIAL PROCESS FIELDS. IN ADDITION, NINE CONFERENCE NEWSLETTERS APPEARING ON A MONTHLY BASIS HELPED TO DISSEMINATE THE FINDINGS OF THE CONFERENCE. THE NEED FOR A WELL-DEFINED AND PROPERLY DIFFERENTIATED TAXONOMY WAS GENERALLY FELT. DETAILED DISCUSSIONS OF EDUCATIONAL PHILOSOPHY, INNOVATION, RESOURCES, TRENDS, POLICY, AND ROLES WERE PRESENTED. FOUR MODELS FOR UNDERSTANDING EDUCATIONAL CHANGE WERE SUBMITTED AND DISCUSSED. IT WAS PROPOSED THAT A SELECTIVE AND CONTINUING SEMINAR BE INSTITUTED TO WHICH RESEARCH PAPERS MIGHT BE SUBMITTED AND THEN DISSEMINATED, UNENCUMBERED BY THE TIME RESTRICTIONS OF A REGULAR CONFERENCE. (GD)

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a conference on*

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THE OHIO STATE UNIVERSITY
RESEARCH FOUNDATION
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Project No. Y-011
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A Report of Conference on
STRATEGIES FOR EDUCATIONAL CHANGE

September 1966

U S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

A Report of Conference on
STRATEGIES FOR EDUCATIONAL CHANGE

Project No. Y-011
Contract No. OE-5-10-307

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Editors

September 1966

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PREFACE

This is a brief report on a project that originated at The Ohio State University in August of 1964 and culminated, more than a year later, in a three-day conference in Washington, D. C., during November 8-10, 1965.

During the first phase of the conference project eight different papers were commissioned from researchers with considerable experience in the fields of education and change. Through these papers, it was intended to provide for the conference, when it met, a bank of ideas to work with. (Appendices II and V). This documentation covered more than 400 mimeographed sheets of typewritten material and represents considerable work and forethought. The papers were distributed among participants and interested people who requested them. They do not now form part of the report and only their abstracts have been included. (Appendix V).

Ten newsletters issued for the dissemination of ideas developed before, during, and after the conference, form another important part of documentation. More than 4,000 copies of each of these newsletters were distributed among teachers, administrators, researchers, and university faculties. The newsletters dealt with important issues and concerns in the area of change and have generated welcome interest in various aspects of planning and organization of educational change in America. (Appendix VI). These, again, do not form part of the present report.

It is customary in America these days to make use of the available technology and to record conference and seminar discussions on magnetic tape. Many conference reports include, slightly edited, verbatim reports of such discussions. While the usefulness of this technique as a storage device is obvious, we believe that in so doing we get too little for too much done. Transcribing and editing of oral records takes considerable professional time. Even after this has been done, there still remains the need to bring those discussions to some central focus points through a cogently written statement in the nature of an overview. This conference report does not include the verbatim discussions but has picked up and organized themes and issues that generated interest, and sometimes heat, at the conference. In places where technology failed and the microphone did not pick up we have depended upon memory and on the logic of the argument.

We hope the report will prove useful.

May 31, 1966

CONFERENCE ON STRATEGIES FOR EDUCATIONAL CHANGE

BACKGROUND

This was a conference on planned change -- the application of systematic and appropriate knowledge to human affairs to create intelligent action and progress. It was born out of the realization that while many of the human endeavors in the Western civilization had accepted planned change as a way of life, education still regarded planned change as an odious political concept rather than viewing it in its sociological context.

Part of the trouble, it was thought, lay in the fact that planned change remained outside the intellectual grasp of educators; they had very little knowledge of the agents and forces that might be used in effecting planned educational change. Change was taking place in education but the leadership of change was often outside of education; most of the time it was random, reactive, homeostatic change. It was felt that if educators understood the process and sources of educational change they might like to do something about it and plan their own future.

This conference was therefore designed to extend knowledge about the process of planned change by emphasizing the actual strategies of educational change. Substantive, organizational, and methodological strategies for coping with various problems of planning and study of change provided the foci for conference deliberations.

OBJECTIVES

The conference was designed to be a working conference. It was not intended through this conference to give visibility to the area of educational change or to "recruit" researchers and practitioners for the study and implementation of educational change. We have already passed that stage in the area of educational change, and discussion of planned change, both informed and uninformed, is sizeable in American education today. The needs of the field are at present practical; and therefore, the conference had very practical objectives. These may be summarized as follows:

1. To organize, systematize, and criticize existing research findings and conceptual frameworks relating to the process of change in education and other social process fields:

2. to project strategies for the conduct of research on the process in the field of education and to consider the relevance of existing knowledge about change to the development of action programs in education; and
3. to stimulate interest in research about the educational change process.

CONFERENCE PLAN

It was realized by the project staff that all the needed thinking could not be done at the three-day conference. Considerable work must precede the actual conference, and conference deliberations used for evaluating suggested strategies, for adding new ones, and for bringing a balance to the thinking of the conference consultants by providing varied perspectives.

To achieve this goal the conference was planned as consisting of three distinct phases. (Appendix IV). The first phase involved the organization and systematization of research findings and conceptual structures relating to the change process within some meaningful classification scheme. This task was accomplished by Dr. Harbans S. Bhola and the results were included in a mimeographed report entitled Innovation Research and Theory

The second phase involved the preparation and presentation of papers at the conference for discussion. Seven papers were presented at the conference by Drs. W. C. Meierhenry, Harry Broudy, William Gephart, Everett Rogers, Egon Guba, Richard Carlson, and Jack Culbertson to provide the springboard for conference discussions. (Appendix II and V). An additional paper made available to the conference was The Configurational Theory of Innovation Diffusion by H. S. Bhola.

The third phase, planned in fact to run concurrently with the first two phases, was designed to bring the conference and its concerns to a wider audience and to make it possible for them to share the interests and concerns of the conference. This was done through participation in campus and off-campus discussions, faculty seminars, and through the conference newsletters.

NEWSLETTERS FOR DISSEMINATION

The dissemination accomplished through the newsletters has been a significant aspect of the project and has provided the project team great satisfaction. The newsletters had been designed as tools for inviting participation and involvement from those who could not attend the conference, and also sought to simulate the conference for them and to provide an opportunity for a dialogue on educational change among readers. If the ever-growing list for distribution is an index, the newsletters were highly successful. Beginning with 3,000 copies for the first issue, the distribution went up to 3,800 in the last issue. Many of those on the distribution list were teachers and administrators in public school systems -- people on the firing line of educational change.

CONFERENCE PARTICIPANTS AND PROCEDURES

The conference was organized as an inter-disciplinary project. Participation was invited along two professional dimensions. One dimension included the disciplines and social process fields interested in the study of educational change, such as: educational administration, curriculum development, economics, change process research, communication, systems analysis, political science, anthropology, educational media, rural sociology, psychology, curriculum theory and research methodology. The other dimension included the organizations interested in the study and implementation of educational change, such as: public and private school administrators, foundations, state departments of education, research and development centers, regional councils in education and universities. The participants and observers to the conference are listed in Appendix III.

The conference during its three-day deliberations was divided into four groups to facilitate discussions. All groups were given the same tasks -- to project substantive, methodological, and organizational strategies for research and action in the planning of educational change. The discussion was kept as unstructured as possible. On the last day the participants met in a final session to enable groups to share their thinking with each other and to bring the whole conference to one single focus.

THEMES AND ISSUES

The following general impressions relevant to the total conference have been recorded before including the specific themes and issues emerging during conference deliberations:

1. The structuring of the conference into substantive, methodological, and organizational strategies presented problems to some participants who saw them as overlapping.
2. Consultants to the conference were actually used as resource persons by participants. They received many a direct question and were often requested to contribute explanations to some of the points raised in their papers.
3. All the papers presented to the conference did not invite equal discussion. The criterion papers did not receive much attention. A paper on organizational strategies by Jack Culbertson, and another on methodological strategies by Egon Guba, engaged most of the attention of participants in all groups.
4. The most predominant concerns of the conference participants were related to value questions, democratic procedures, need for alternatives, and decentralization in decision-making. The most freely expressed sentiment was for the teacher to do his own innovating without outside interference.
5. There was very little done with respect to the projection of actual strategies of educational change, and in that sense the conference must be considered less than a complete success. We will talk of this later in the section on "Conference as a Mechanism for Advancing Knowledge."

The various issues emerging from the conference discussions are included below. They are organized in a rough and ready hierarchy from the general to the more specific.

Need for a Taxonomy

The need for well-defined and properly differentiated concepts as tools for research and discussion in the field of innovation diffusion was generally felt. It was realized, for example, that diffusion of innovations within the school, diffusion from school to

school, and diffusion across school systems in the nation had not always been discriminated during conference discussions. A distinction was also found necessary between the kind of activity where the teacher is involved in solving his classroom problems and where he is engaged in accepting an innovation developed outside the school. Many other taxonomic needs emerged. To give this need a wider recognition a newsletter was addressed to the problem of taxonomizing social change situations, entitled, "Categories of Social Change." This newsletter has already been distributed among conference participants and readers of the newsletter. (Appendix VI).

A National Perspective

Some of the conference participants expressed the view that innovation and change had become the norm in American culture and therefore change should not present any formidable problems. This view was not shared by all participants; they did not think change or continuous improvement was an accepted norm with educators. If it had been so, there would have been normal growth of the educational enterprise; and talk of educational change, in a sense, would have been unnecessary. Attention was drawn to a recent Gallop Poll which indicated that 85% of the American people thought that American education was doing all right. This was an indication of general satisfaction with the status quo rather than an interest in change.

FOCUS ON EDUCATION

The educational enterprise in America, it was stated, was organized to be a most uninnovative subculture. In the university departments professors seemed to seek students who were the right kind of people, said the right kind of things, and gave the right kind of answers to finish the doctoral program in time. In public schools principals similarly sought teachers who agreed with them. The nonconformist, the abrasive, the deviant, and the innovative guy was not welcome anywhere. The innovative individual in educational organizations resorted either to escapist behavior and left the organization or to withdrawal behavior and became completely indifferent to the plans and programs of the organization.

Beginning from the Beginning

Beginning from the beginning, some participants challenged the need and the idea of educational change. Change was not something desirable per se. A participant raised the point that schools were meant to teach and not to innovate. Another participant suggested that change may sometimes have to be resisted by schools to be able to achieve instructional objectives.

What do we want to change in our schools anyway? Do we know for sure what we want to introduce in our classrooms? Are proposed changes related to actual needs? Have we studied the consequences of the change we are proposing? These were some of the other questions. It was pointed out, for instance, that in spite of the known utility of the S-R approach to some classroom learning situations, all or almost all regional and national curriculum projects had emphasized the cognitive approach. Was there a research justification for doing so? To take another example, do we have enough evidence about the usefulness of graded versus the nongraded schools?

In answer to the persistent "Do we know" often heard among teachers and educators, a participant advocated a proper perspective on how much evidence was needed, and about the legitimacy of acting on "insufficient data" when an existing practice was patently out of date.

Some participants warned against the possibility of our inventing innovations and of schools inventing needs to make use of those innovations. Innovations, it was advocated, must be need-based. An interesting counterpoint, however, was made in this connection by another participant who indicated that innovations need not be based on the existing needs of the practitioners. The innovator in fact must be able to project needs. In agriculture, for example, neither the farmer nor the consumer ever had the need for a better breed of table birds or higher yielding varieties of wheat and corn. Similarly in pharmaceutical development the inventor and innovator do not react to existing needs of doctors but project them. There is no reason why innovators in education should not project needs, create and test innovations and make them available to schools who never identified such needs but had them all along.

It was indicated that innovations may sometimes have completely unintended consequences and may confound our educational goals. The PSSC material, for example, had proved successful and spread fast across the nation but the enrolments in Physics in schools had gone down to two-thirds of what they used to be before PSSC was introduced. Did we make a decision about whether we wanted it to happen?

Organization for Change

A suggestion in Jack Culbertson's paper for the establishment of a national education academy to recruit and prepare personnel to carry out planned change invited considerable comment.

The first question was: Why not use the existing channels instead of creating new ones? Why cannot we retool 30 to 40 universities to play the role of training these innovators? The agricultural model was held up for comparison. They have a National Research Center in Washington but all the land-grant colleges and most of the universities are functioning as training grounds and research centers. The "little MIT" of education proposed by Culbertson it was feared would create a prestigious elite -- a "West Pointer" mystique of always knowing the best. The Academy may make all other graduate programs look inferior. It may cause a steamroller effect with regard to innovations which may be accepted without trial and evaluation for they are supported by graduates from the right school. By encouraging one style of thought in its graduates it may put cultural blinkers on them and make them just the opposite of innovative people.

The suggested Academy was also seen as deferring the problems of educational change by six years -- the time it will take to turn out the first batch of graduates.

The suggestion regarding the establishment of an institute for the study of innovation met similar criticism. Why create new institutions when you have the R&D centers? The Institute was seen as neglecting dissemination. It was thought that it might add to the existing storehouse of ideas without taking them to the classrooms where they are needed.

The question, someone summarized, boils down to this: How much specialization and differentiation are you ready to build in education? If you want to professionalize education, new specialized institutions have to be built. This will need doing.

Developing National and State Policies

Suggestion regarding creation of new institutions for handling educational change led to a discussion of the need for maintaining the pluralism of American society. The participants were strongly against the emergence of any tribal monopoly of policy in education. While the need for national and regional educational policies was appreciated it was felt that there was, for the present, no way of developing policy through broad-based decision-making processes. There existed no pattern of relationships between the Federal, State and local governments to indicate that they could sit together to evolve a national policy or policy alternatives. The point was made

that only through trying to work out such a partnership will functional relationships emerge between different levels of decision makers.

There was a strong feeling that we need not be as primitive in education as we have been in reacting emotively to any talk of educational policy at a national level.

The question of providing alternatives to the classroom teacher brought out interesting comments. One view was that the teacher now had really no alternatives available to him because he did not know more than one method that had been taught to him in school. Unless he had internalized more than one of the alternatives and could use all of the alternatives with equal facility he really was unable to make any real choices. The new curriculum projects may give the teacher, for the first time, some choices he can make. From another perspective, the teacher was seen as having too many alternatives because we had failed to define even what was definitely unprofessional. As a result, the teacher did what he pleased; and many kids were barely managing not to drop out of school, and lived with teachers who had no business being in our classrooms.

It was recommended that more sophisticated and refined approaches to decision making in education should be used. Such techniques as those available from the decision theory tradition should be used. The sad situation of educational policy being left to the slipshod treatment of columnists in Time and Life needed to be changed urgently.

Those who think that a national policy in American education did not exist or was impossible should read Commissioner Keppel's speeches more carefully. There is a national policy. What we needed to do was to broaden the process of decision making through creating patterns of relationships between decision makers at different levels.

The Right to Innovate

The value dimension or the philosophic considerations of organized educational change revolved around the question: Who has the right to innovate in the classrooms of our nation? The answer, most of the time, seemed to be -- the teacher. It was pointed out, however, that the teacher had seldom done the innovating in public education. Even the higher ranks of our educators had failed the profession time and again. Why did not education see the writing on the wall and make the "Poverty Program" unnecessary? Why are politicians and government assuming more and more responsibility in education? Why isn't education leading the society?

The next question was: Can the teacher suggest and carry out innovations or is all this talk of an innovative teacher an exercise in wishful thinking? Those who stood by the teacher quoted the experiences of Michigan's Ronald Lippitt who, while working with teachers, had found many of them highly innovative individuals. However, those who had little or no hope of innovation from the teacher outnumbered the optimists. They pointed out that an innovative teacher was a rare bird. He had no time for all the different jobs of teaching, innovating, and disseminating. He was also the least qualified of all the craftsmen in American society, and if he ever developed an innovation at all it was situational and limited in application. No teacher was ever likely to have the perspective or the competence for developing a PSSC. However, to think that teacher-made innovations were unimportant, situational, or limited is a judgment not necessarily based on fact.

The sentiment was, however, persistently expressed that innovation should be kept within the public school systems. Let us not overlook the fact, they pleaded, that the teaching profession itself has been a major organization for change and has been taking care of change in the field of education. If teachers were not more creative than they actually are, the fault was in the organizational structure in which they were placed.

How Innovative are Educational Administrators and the School Boards?

One point of view was that teachers and administrators were not resistors of change as seemed to be the implication of the conference discussions. Most often schools needed direction rather than a push. It was a steering function rather than a motion function. It was a norm with school principals to be innovative. They did though look up to authority for guidance, for education was a complex process and they were grateful for any sense of direction given them.

The introduction of any innovation even when developed within the school system comes to have a public context. It has to be discussed and approved by the community. Very often it was community resistance which was confused with administrator resistance by the observer of change. On the other hand, some school systems which were considered innovative were not really so because they had accepted innovations for the wrong reasons -- to make their teachers and kids enthusiastic and save them from sheer boredom.

An interesting comment was made on Brickell's study in New York State. It was stated that Brickell had given the credit of innovating to school superintendents when it really belonged to the school boards. Only good school boards go in for innovative superintendents.

In summary, change was seen as a complex set of forces, for and against, imposed by learners, peers, teachers, principals, superintendents, and school boards. The innovation diffusion when it happened represented a resultant force of a system of forces.

Partnership in Educational Change

Apart from the people at different levels of education, four different partners in change were identified: the legislatures, the foundations, the mass media, and last but not least, the commercial houses that produce and distribute educational materials. A markedly obvious example of legislative role in innovation diffusion was offered by California in the spread of language laboratories. The legal requirement that every student be offered one foreign language led to a fast spread of language laboratories in the state. The role played by foundations in the area of instructional television is very well known. A good write-up on an educational practice or innovation in one of the leading periodicals made an innovation instantly popular, testifying to the power and influence of mass media on education.

By far the most important part in educational change was played by industry and business houses. While the profession sometimes gave the ideas, the hardware always had to come through industry. The role played by business houses in the area of programmed instruction, motion pictures, overhead projectors, and textbooks was well known. Among the public school educators, industry had already succeeded in building for itself an image better than the universities. Results of a recent survey of school superintendents indicated that in case of need, 32 out of 56 superintendents would like to call in a representative from a commercial house rather than a professor from the university. The business houses had been found to be more responsive in giving both quick and adequate answers to work-a-day problems of school systems. One thing that remained wanting in education-industry relationships was the availability of contracts for development and evaluation of educational innovations, like those available in the area of science and technology.

MODELS FOR UNDERSTANDING EDUCATIONAL CHANGE

More than one model of educational change came up for discussion during conference discussions.

The Configurational Theory

H. S. Bholra's Configurational Theory of Innovation Diffusion was mentioned as helpful in clarifying the networks of change relationships existing in the educational enterprise, and as one way of understanding the multi-dimensional nature of the change process.

The Agricultural Model

The agricultural diffusion model repeatedly came up in conference discussions. The point was made that while the farmer could not psychologically withdraw from the field, the teacher could from the classroom. Again, while the farmer could totally refuse to accept a new innovation the teacher could not be so categorical in rejecting innovations if his peers and colleagues had accepted the innovation. It was also suggested that a strict adherence to the agricultural model would put the teacher in the "role-jacket" of the farmer who of course was always an adopter and would make it difficult for educators to imagine the teacher in two roles of the adopter and the innovator.

The Communication Model

The communication perspective for the study of educational change was also discussed. While taking note of Carlson's study which had used the communication model to study networks of school superintendents, it was pointed out that it might not be so useful with principals and teachers because no principal and teacher networks seemed to exist.

The communication networks did, however, provide insights to an innovator about the points of entry into a school system. If an innovator wanted to put an innovation into a school system the best point for entry, it was suggested, would be the highest, that is, the superintendent.

At the national level it was stated that the communication model suggested use of already existing channels of communication rather than creating new ones which brought out the need for closer cooperation between the established research and curriculum associations in the country.

Theory Into Practice Model

Another model that came up for discussion was the "Theory Into Practice" model and its various forms like research-and-practice gap, utilization-of-research, etc. It was thought that the strategies suggested by Guba in his methodology paper provided the way of making the researchers and practitioners talk to each other, and link the two orientations presented by AERA and ASCD as suggested elsewhere.

Development Emphasized

The "Theory Into Practice" model brought out the special need of development in education. Many a useful innovation had become a failure because it was never properly developed and put in a form in which it could be used by the classroom teacher.

Distribution of Roles

The "Theory Into Practice" model with the various stages of Research-Development-Diffusion-Adoption suggested by Guba in his paper led to a discussion of needed roles in education if educational change was to be put on a regular basis. A division of labor in the area between various institutions of education was also recommended.

It was strongly felt by some participants that schools were not capable of undertaking research. It was wholly unrealistic to expect from them the competences, the interest, the time, and the resources needed for undertaking research. Why should a school or a school district commit its resources to a research project whose results would benefit a much larger community of professionals? The suggestion was that research could probably be undertaken by the universities and the new R&D centers. The State Education Department could undertake dissemination while the schools and school districts should undertake demonstration and field-testing. Where schools were interested in solving a particular local kind of research problem which the university was not interested in, they could buy the research time of private consultants or some other interested educational institution.

It was realized that the disseminator's role had become quite specialized. After considering the example of some of the people who are sent by electrical firms or computer firms to sell their products, it was realized that the educational disseminator will have to be a person who knows both the process of change and the content of what he was disseminating. He must be able to answer the tough questions that might be raised in this connection. It was even considered feasible to have dissemination teams gotten together by neighboring school districts who could answer all questions, cope with all aspects of diffusion and undertake dissemination of an innovation in a particular region.

Legitimizing Innovation

The question of legitimizing educational innovation kept coming up for discussion. It was realized that both agriculture and medicine had special agencies and institutions that served the functions of legitimizing an innovation. In agriculture the

responsible agency was the Agriculture Research Center; in medicine the Food and Drug Administration. Both agencies used professional journals to perform the legitimizing function. However, there was not any institution in education which could undertake legitimizing of educational innovations. Suggestions were made that R&D Centers should develop themselves so as to play the legitimizing role in education. It was noted that ETS was playing a little of this role but it was not going far enough.

CAN WE TRAIN INNOVATORS?

The question was preceded by a prior question: Had we been able to train educational researchers? It was indicated that while we had been busy suggesting and developing many programs for the training and education of researchers in education, the results had not so far been very interesting or encouraging. We still did not have enough educational researchers. Under Title I many school systems would have to appoint research directors, and there were not many of those people around; even the kind of people who could turn out a good research proposal were not available in schools and in some of our universities. Various difficulties were seen at the root of this situation.

The university "training for research" programs, it was thought, were all laboratory-oriented emphasizing the 'level of significance' rather than the 'confidence interval' which makes a lot more sense in sociological research. We had not so far been able to define a good research program. We had also drawn good researchers to administrative work because administrative work paid more and had more prestige. The need to establish research programs oriented to field work was emphasized, although it was realized at the same time that with the present hierarchies of research field work was not considered very respectable, and might not attract people to a training program emphasizing field techniques.

Training of Innovators

The situation of training of educational researchers was extrapolated to the training of innovators. It was felt that we needed to have two kinds of training orientation: (1) training of innovators in university departments or academies like that suggested by Culbertson, and (2) in-service training of innovators. The Title III and Title IV Grants had increased pressures on school systems to have within them many inventive and innovative people, and the problem of in-service training of innovators was more than an academic question.

In designing training experiences, two types of approaches were recommended. One suggested approach was internship with a person who was a good innovator so that the intern saw the innovator in action and hopefully caught on. The Cocoa Beach school system was cited as an example of a successful internship program.

Some others, however, reacted very strongly to the suggestion of internship. We know enough about behavior, learning, and rewards to be able to set up a good training program.

METHODOLOGICAL STRATEGIES

The conference participants thought that Guba's paper was a good attempt in seeking to liberalize the rules of research evidence. The programmatic emphasis in Guba's paper in defining and selecting research objectives was highly appreciated. It was pointed out by a participant that while Guba's suggestions looked seemingly simple, they were really difficult to handle and required a lot of pioneering. Another point was raised in that Guba's paper seemed to make theory indispensable for any research which was not necessarily the case.

INNOVATION AND IDENTITY

It was pointed out that innovations often lose their identity during diffusion. Modern Maths, for example, was not meant to be all concepts by its own author. It was never intended to neglect necessary arithmetical facts. However, in the diffusion of Modern Math the pendulum had swung to the side of concepts, thus neglecting arithmetical skills altogether. This phenomenon needed study.

PROBLEMS OF EVALUATION

Related to Guba's "Theory Into Practice" model was the question of evaluation. Guba's model suggests that different evaluative criteria and probably different evaluation methods are needed at different stages of the theory-practice continuum. It was generally felt that evaluation had been a neglected area in education. Educators had not studied the consequences of innovation for

teachers, administrators, learners, and communities; in fact, the whole impressive array of curriculum projects in the country had failed on this count. While it was understood that evaluation tended to be ultimately a problem of costs, it was recommended that educators pay the cost of evaluation, for the cost of unintended change may be much more!

The question was raised: Would the schools open their doors to such a massive testing and demonstration program as was being envisaged in conference discussions? Will they let researchers and evaluation teams disturb their regular classroom schedule? Will they let them have all the controls in the study of change -- new books, monitors, controlled temperatures, change of schedules and instructional materials? It was hoped that once the researcher was clear about what he wanted to do, and if he was willing and able to share it with school authorities, he would find school systems more than ready to cooperate. In fact, some parents had been known to write to research teams that their children be included in the new experimental programs. Lastly, a letter from the superintendent to the school principal was always helpful.

The participants studied the example of "Project Headstart" which had been put outside of the formal structure of education. It was pointed out that this was deliberately done so that if this highly experimental project failed the blame would not fall on the educational establishment. This pattern should be kept in mind by evaluation teams in education.

PROBLEMS FOR STUDY

While many research problems and areas of need in the field of educational change are implied by the preceding discussion, there were some specific problems which were pointed out by the participants as urgent and potentially useful:

1. What is the relative effectiveness of authority versus leadership in bringing about educational change?
2. What is the theoretical significance of the study of educational change in a school system as a restructuring of instructional roles?
3. Are teachers, who are themselves innovators, more likely to accept innovations developed outside?
4. What is the process through which an otherwise suitable innovation is confounded and thus loses its identity?

5. What is the theoretical usefulness of the concept of a school system as a network of decision-makers?
6. How much innovation can a school system as an organization take without being completely disorganized?

NEED OF A CONTINUING DIALOGUE

The conference felt keenly the need for a continued exchange of views and information between participants and people engaged in educational change. It was necessary, they felt, that such communication be established so that the same mistakes were not made over and over again. The Innovation Diffusion Center in Michigan State University was brought to the attention of the conference. The role of the SEC Newsletter was appreciated in making a continuous dialogue between participants possible.

PRESENTATION BY THE U. S. OFFICE OF EDUCATION

A presentation by officers of the U. S. Office of Education was given to participants on the subject of educational legislation. They discussed the role of regional laboratories and compacts of school districts in making education at the school level more effective and responsive to the needs of the country.

A description was given of the Educational Research Information Center (ERIC) and its role in disseminating unpublished material in education among researchers and consumers at a very low price. ERIC, it was stated, will collect materials through different satellite centers all over the country and would make 60 pages of material available on special microfilm for a mere 9¢.

CONFERENCE AS A MECHANISM FOR ADVANCING KNOWLEDGE

It may be recollected that the conference had been planned to be a working conference with specific objectives in view. This was not the first conference on the subject of change, and

therefore it was not intended through this project to give the field of educational change a visibility. Also it was not intended to provide some professional people the opportunity to come together to be exposed to the area of educational change hoping that some of these people from different social science disciplines will be "recruited" to the cause of educational change. Two earlier conferences on educational change -- Nebraska Conference (November, 1963), and Systems Development Corporation Conference (May, 1964) -- had performed these jobs and there had been some discussion on the topic of educational change already in American education.

This conference was organized to take knowledge about educational change farther from where it was. That is why it had addressed itself specifically to strategies of studying and organizing educational change. It was discovered, however, that the conference was not the best technique for achieving those objectives. In the first place, it is hard for project staff to work with consultants who are not on campus. Assignments are hard to define and to communicate through correspondence or over telephones. In a comparatively unstructured situation a consultant may not speak directly to the issues originally intended. On the other hand, too many demands from the project director and his team may be interpreted as undue interference with professional freedom and integrity.

The plans go awry when it is found that pre-conference work has not been used by a lot of participants. The comment: "Bill! I wanted to read the whole of your paper but the plane landed too soon," is unfortunately both typical and true. This involves a sheer wastage of professional effort and the participants find themselves discussing the same questions and same issues all over again.

A useful strategy in cases where existing knowledge has to be taken farther from where it is, seems to lie in the establishment of a selective and continuing seminar on the subject. A small group interested in a topic may be instituted on a university campus. This group may by themselves or through others develop materials by continuous consultation with individual professionals in other disciplines and orientations. A project group interested in organizational strategies of educational change may, for example, invite Jack Culbertson to write a paper and once he has developed it may discuss it within the project group. Later on they may discuss it with a headmaster, a state department official, a school board member, an organization theorist, or a public administration specialist. Care should be taken that in this selective continuous seminar many different points of view and many divergent interest groups are represented. Such a technique may be more useful in inventing solutions and in advancing knowledge rather than a largely attended conference with under-used participants.

APPENDICES

APPENDIX I

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David L. Clark
Egon G. Guba
Roy A. Larmee
Harbans Singh Bholi
Richard C. Rice
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APPENDIX II

CONSULTANTS WHO PRESENTED PAPERS TO THE CONFERENCE

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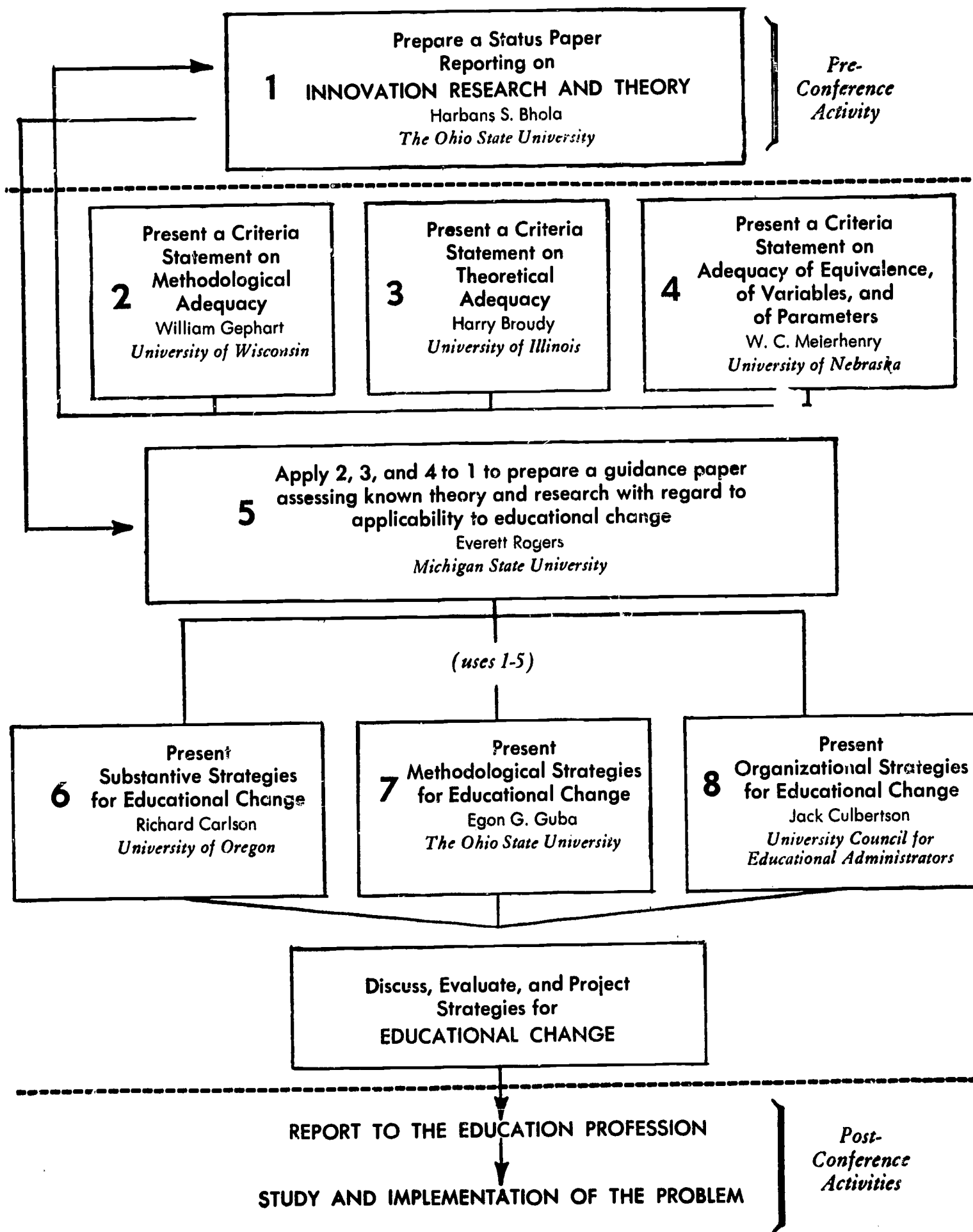
W. W. Wayson
Syracuse University
Syracuse, New York

APPENDIX IV

PLAN OF THE CONFERENCE

(Chart - Page 25)

PLAN OF THE PROJECT a schematic presentation



APPENDIX V

ABSTRACTS OF PAPERS PRESENTED TO THE CONFERENCE
ON STRATEGIES FOR EDUCATIONAL CHANGEINNOVATION
RESEARCH AND THEORY

By Harbans Singh Bhola

The paper took a broad view of innovation research and theory, summarizing important diffusion-related research from most foundational disciplines of social change such as anthropology, sociology, economics, communications, and behavioral sciences generally.

A descriptive taxonomy based on the content of possible questions that might be raised in this area was suggested. The review of research and theory was organized around five major categories of this taxonomy: (1) philosophic considerations, (2) the content of innovation, (3) the nature of inventors, innovators and adopters, (4) the process and tactics of diffusion, and (5) measurement and evaluation of change.

The final section of the paper presented a methodological perspective listing methodological approaches used or possible in the investigation of change.

CRITERIA FOR THE
THEORETICAL ADEQUACY
OF CONCEPTUAL FRAMEWORK
OF PLANNED EDUCATIONAL CHANGE

By Harry S. Broudy

The paper spoke to the question of what criteria of logical adequacy should be fulfilled by a theory of planned change. Value positions and moral norms were considered indirectly.

Problems of and criteria for assessing generalizability, explanation, prediction, and control in social sciences were seen as being somewhat different from those in the physical sciences.

The problems of adequacy were discussed along two general dimensions: (1) structure of knowledge or questions about the logical relationship of new generalizations with already available generalizations; and (2) methodology employed for arriving at those new facts or generalizations.

It was indicated that it was difficult for social science to approximate to the ideal conditions for tested knowledge because there was no agreed upon set of established facts, or for that matter, no set of established problems, to help both in theory building and fact gathering. This made it difficult to keep studies comparable, to disconfirm weak hypotheses, and to make research results cumulative rather than merely accumulating.

The paper provided a summary of criteria for judging theoretical adequacy related to definition, logical and psychological explanation, methodological consequences, and heuristic value of formulations.

A CRITERION PAPER ON PARAMETERS OF EDUCATION

By W. C. Meierhenry

The paper addressed itself to a definition of the boundaries and limits of innovation in education. Significant variables of educational change in American education were discussed around five clusters suggested in the status paper on review of research: (1) philosophic considerations that involve both the goals and ends of educational change and the means of achieving them, (2) the characteristics and scope of educational innovation that may vary from substitution to restructuring, value changes, building new facilities or creating new organizations, (3) the nature of innovators and adopters in education that are pluralistic, but often undesignated and sometimes merely non-existing -- as for example, the change agent and the disseminator, (4) process and tactics of educational change that present a catalogue of problems resulting from complex decision-making structures, absence of communication within the enterprise, abundant institutional resistance, heightened concerns for boundary maintenance, invisibility of goals both general and specific, lack of personal or economic motives, and absence of research and development investment, and (5) measurement and evaluation where problems are multiplied for lack of clear-cut standards for performance or criteria for product assessment.

CRITERIA FOR METHODOLOGICAL ADEQUACY FOR RESEARCH ON EDUCATIONAL CHANGE

By William J. Gephart

The evaluative criteria presented in the paper evolved from literature and research on the "research process." The paper emphasized the research design. It treated sequentially the following topics: (1) a plausible logical framework for educational research effort, in itself as a logical argument, (2) general criteria for research evaluation, presenting separately evaluative criteria for problem statement, hypotheses, experimental design, data analysis, and conclusions of a study, (3) elements of the study of the educational change process suggesting a four-dimensional research paradigm based on interaction of innovation, change agent, target unit, and change strategy, (4) methods and techniques for studying the change process noting historical, descriptive and experimental methods, and (5) criteria of adequacy for evaluating research techniques in the study of educational change discussing briefly the problems of internal and external validity, sample selection, data collection techniques, and data analysis.

TOWARD A NEW MODEL FOR EDUCATIONAL CHANGE

By Everett M. Rogers

In this paper Rogers took to task what he considered the exclusive concern with antecedents and correlates of educational innovativeness in the past study of educational change. A new model for educational change emphasizing the need to evaluate the consequences of innovation for teachers, learners, and communities, was then suggested.

The paper pointed out the need to study change within schools and the nature of decision making involved in adopting innovations at the school level which may involve forced rather than optional, contingent, or collective decisions. A paradigm for studying the discrepancy between the teacher's attitudes toward the innovation and the overt teacher behavior as demanded by the organization was also presented.

STRATEGIES FOR
EDUCATIONAL CHANGE:
SOME NEEDED RESEARCH ON
THE DIFFUSION OF INNOVATIONS

By Richard O. Carlson

Emphasis was placed in the paper on diffusion of innovations between schools and school systems and a communication paradigm was used to suggest study of such dependent variables as characteristics of adopting units, position of superintendents in the social structure of other superintendents, nature and extent of communication channels, and process and basis of decision making.

Before focusing on the study of adoption and diffusion the paper made two points: (1) that evolutionary or natural change was as important to the life of an organization as planned change and therefore needed to be studied; and (2) that we should avoid the "victim orientation" in the study of educational innovation whereby schools are considered victims of local educational budgets and community characteristics. An inward critical look on the patterns of behaviors of school people was recommended.

METHODOLOGICAL STRATEGIES
FOR EDUCATIONAL CHANGE

By Egon G. Guba

The paper was addressed directly to the researcher. Two general strategies available to an investigator of social change were identified as: (1) experimental, and (2) aexperimental or field study.

It was indicated that in the present state of theorizing and research in educational change, experimental techniques might be premature, while the field study approach was probably more suited, for reasons of the particular setting of change research, the level of control, the breadth of focus of change studies, number of variables and treatments involved, and the context of events being investigated.

Some illustrative tactics for field studies suggested were: (1) programmatic approach to selection of research objectives based on logical priorities, (2) explication of theoretical and logical framework of study, (3) coping with the realities of the field situation and availing of new openings when available, (4) replication and recycling of data to build accumulative evidence,

(5) use of quasi-experimental designs whenever possible, (6) substitution of purposeful focusing to make up for a lack of experimental control, (7) development of techniques for collecting "educational evidence" to study change and its consequences, (8) emphasis on logical inference rather than statistical inference, and (9) analysis of pathologies -- field studies that turned out badly -- to gain insights.

ORGANIZATIONAL STRATEGIES FOR PLANNED CHANGE IN EDUCATION

By Jack A. Culbertson

The paper described the Educational Enterprise as severely underdeveloped in its systems of research, planning and development. It suggested organizational strategies for planned educational change in the theoretical framework of the management of conflict within organizations.

The paper identified and analyzed sets of political and social constraints affecting planned change in American education and suggested four long-term strategies for coping with these constraints: (1) establishment of a national education academy to recruit and prepare personnel to carry out planned change, (2) creation of an institute to study long-term challenges of innovation insulated from the demands to produce immediately practical results, (3) institution of new organizational arrangements to facilitate the development of national and state policies for education, and (4) application of operations research to problems of local school district planning.

The Configurational Theory of Innovation Diffusion, by Harbans Singh Bhole, was also made available to the Conference participants as one way of looking at the process of innovation diffusion.

Copies of these papers are available to those interested on duplication cost basis.

APPENDIX VI

NEWSLETTERS ISSUED
AS PART OF THE CONFERENCE
ON STRATEGIES FOR EDUCATIONAL CHANGE

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|--|-----------------|
| 1. Educators and Change | September, 1965 |
| 2. Understanding Social Change | October, 1965 |
| 3. Planned Change -- A Value Perspective | November, 1965 |
| 4. The Washington Conference on
Educational Change -- A Vicarious Journey | December, 1965 |
| 5. Categories of Social Change | January, 1966 |
| 6. The Nature of Organization for
Educational Improvement | April, 1966 |
| 7. The Cooperative Project in
Educational Development | May, 1966 |
| 8. The Cooperative Project in
Educational Development | June, 1966 |
| 9. Projection of Strategies | July, 1966 |